UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,139	09/09/2003	Ed H. Frank	14182US02	3006

23446 7590 04/03/2008

MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER	
HOANG, HIEU T	

ART UNIT	PAPER NUMBER
2152	

MAIL DATE	DELIVERY MODE
04/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,139	FRANK ET AL.	
	Examiner	Art Unit	
	HIEU T. HOANG	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/02/2007, 05/02/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on 08/16/2007.

2. Claims 1-31 are pending.

Response to Amendment

3. The objection of claim 1 has been withdrawn due to the amendment.

4. The 35 U.S.C. 101 rejection of claims 11-20 is maintained for the rationale given in the U.S.C. 101 rejection section below.

Response to Arguments

5. Applicant's arguments on U.S.C. 102 rejection have been fully considered but they are not persuasive.

6. The first argument is in section A of the Remarks wherein the applicant argues that the prior art does not teach "servicing said access device by one of said first access point, said second access point, and said third access point based on said initial authentication." The examiner respectfully traverses. First, Laurila teaches providing authentication information from the device to the first access point (fig. 2, 3); as a result, the first access point is capable of servicing said device based on said initial authentication before handover to another access point (col. 8 lines 62-67), reading on "servicing said access device by one of said first access point, said second access point, and said third access point based on said initial authentication." Second, the claim recites servicing the device based on said initial authentication. It does not recite that

absolutely no further processing to the transferred authentication information is to be done before servicing. Arguments regarding new authentication information SA is therefore moot, even if the SA is new, it's based on the transferring of SA from the old AP (access point) to the new AP. Refer to fig. 2 of Laurila, authentication information SA is transferred from AP old to AP new, and payload can be resumed following the transferring, reading on the claimed invention.

7. Arguments in section C, D, and F of the remarks: the prior art does not teach "retrieving said initial authentication information by said second access point when said access device migrates from a first coverage area associated with said first access point to a second coverage area associated with said second access point. The examiner respectfully traverses. Laurila teaches this limitation (fig. 3, a handover is when the mobile terminal migrates from a first coverage area of AP_old to a second coverage area of AP_new, fig. 2, retrieving SA by said second AP).

8. Last argument in section H: transferring of SA in the prior art is not transparent. The examiner respectfully traverses. One skilled in the art appreciates that a transparent process is a process that does not require user's intervention. Therefore, refer to fig. 2 and 3 of Laurila, the whole process of transferring SA is transparent because it's completely automated.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 11-20 are rejected under 35 U.S.C. 101 as the claimed invention is directed to non-statutory subject matter. A computer-readable media, having stored thereon, a computer program, can be read by one skilled in the art as any of a transmission media (cable, wire, wireless media), signals or signal-carrying waves and is therefore non-statutory for not falling in any one of the four categories: a process, machine, manufacture or composition of matter.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-7, 9-17, 19-27, and 29-31 are rejected under 35 U.S.C. 102(e) as being by Ala-Laurila et al. (US 6,587,680, hereafter Laurila).

13. For claim 1, Laurila discloses a method for providing seamless connectivity and communication in a multi-band, multi-protocol network (abstract), the method comprising:

- initially authenticating an access device upon said access device initiating communication with a first access point (fig. 3, col. 8 lines 62-67, AP_old 14 or the old access point that mobile terminal 12 is originally communicating and about to disconnect to hand-over to a new access point, or AP_new 114; SA or security association, read as authentication information, is retrieved from AP_old, suggesting that AP_old has stored authentication information of mobile terminal 12 for the original communication);
- providing authentication information related to said initial authentication to at least one of a second access point and a third access point (fig. 3, HO_request, a handover request containing authentication information is sent from AP_old to AP_new); and
- servicing said access device by one of said first access point, said second access point and said third access point based on said initial authentication (fig. 3, payload traffic or servicing can be resumed between the mobile terminal and the new AP).

14. For claims 11 and 21, the claims are rejected for the same rationale as in claim 1.

15. For claims 2, 12, and 22, Laurila further discloses storing said initial authentication information (fig. 3, AP_old has stored the authentication information of terminal 12 for the original communication).

16. For claims 3, 13, and 23, Laurila further discloses retrieving said stored initial authentication information by said second access point and said third access point (fig. 3, HO_request, a handover request containing authentication information of device 12 is sent from AP_old to AP_new).

17. For claims 4, 14, and 24, Laurila further discloses said retrieving comprises retrieving said initial authentication information by said second access point when said access device migrates from a first coverage area associated with said first access point to a second coverage area associated with said second access point (fig. 3, a handover is when the mobile terminal migrates from a first coverage area of AP_old to a second coverage area of AP_new).

18. For claims 5, 15, and 25, the claims are rejected for the same rationale as in claim 4. A handover to a third access point is the same as the handover from the old access point to the new access point.

19. For claims 6, 16, and 26, Laurila further discloses said retrieving comprises retrieving said initial authentication information upon said access device initiating communication with said second access point (fig. 2, radio handover, HO_request, HO_response(SA,SA), the new access point retrieves the initial authentication

information of the mobile terminal previously stored at the old access point upon the device initiating communication with the new access point).

20. For claims 7, 17, and 27, the claims are rejected for the same rationale as in claim 6.

21. For claims 9, 19, and 29, Laurila further discloses transparently transferring said initial authentication information to said second access point during a handoff of said access device from said first access point to said second access point (fig. 2, HO_request, HO_response, fig. 3, HO_response, transferring authentication information from the old access point to the new access point during a handover between the two).

22. For claims 10, 20, and 30, the claims are rejected for the same rationale as in claim 9.

23. For claim 31, Laurila further discloses said at least one processor is an authentication processor, a switch processor, an access point processor and a server processor (fig. 2, AP_old, AP_new are specialized computers having processors).

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

25. Claims 8, 18, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Laurila, as applied to claims 1, 11, and 21, in view of Bhagwat et al. (US 6,651,105, hereafter Bhagwat)

26. For claims 8, 18, and 28, Laurila discloses the invention substantially as in claims 1, 11, and 21. Laurila does not disclose distributing said initial authentication information to said second access point and said third access point upon said initial authenticating.

However, Bhagwat discloses distributing said initial authentication information to said second access point and said third access point upon said initial authenticating (fig. 5, authentication server, col. 7 lines 34-42, col. 10 lines 14-34, a centralized authentication server stores authentication information of mobile devices as they move from one access point to the next)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Laurila and Bhagwat to implement a centralized authentication server for distributing authentication information in a dynamic fashion among PPP backend servers and further access points (Bhagwat, col. 10 lines 22-26).

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152